## ABSTRACT OF THE DISCLOSURE

An optical communication system includes a plurality of optical channels, each of which passes a single optical wavelength signal. Each of the plurality of optical channels includes an optical amplifier which is controlled to operate at a predetermined output power level independent of channel wavelength and input power level by operating each optical amplifier in a saturation mode. Pumping power for operating each optical amplifier in the saturation mode is supplied from shared optical pumps or a plurality of one per channel optical pumps.

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